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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Daniel J. Zigmond

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LEE & HAYES PLLC

421 W RIVERSIDE AVENUE SUITE 500

SPOKANE, WA 99201

EXAMINER

STRONCZER, RYAN S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/805,031	Applicant(s) ZIGMOND ET AL.	
	Examiner Ryan Stronczer	Art Unit 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3-19-04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 6, 8-12, 25, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaars (Pub. No.: US 2003/0056010).

Claim 1 recites, *"A method comprising: recording a video program; recording metadata associated with the video program; receiving updated metadata associated with the video program; and replacing the previously recorded metadata with the updated metadata."* Kaars teaches a device which records and locally stores content and associated metadata, subsequently receives updated metadata for the recorded content, and replaces the originally recorded metadata with the later-received metadata. Kaars teaches, "In this delivery system, a piece of content 123 with embedded set of metadata 456 is broadcast to the device 100...The device 100 stores received content 123 and original metadata 456 in memory 140" [0014-16]. After the content 123 is stored in memory, the device receives a new set of metadata 789 related to content 123 from database 200. Regarding the new metadata 789, Kaars teaches:

...the metadata 789 is used to replace the metadata 456. The need for replacing the metadata 456 with the new metadata 789 may be due to various reasons. First, the metadata 456 may have been corrupted during transfer to the device 100 and the metadata 789 can therefore be an intact version of the metadata 456. Second, the metadata 456 may be outdated and needs to be replaced with the new metadata 789 comprising up-to-date information with respect to content 123...The unit 160 may store content 123 with new metadata 789 in the memory 140 thereby replacing content 123 previously stored with the metadata 456." [0022-23]

Claim 4 recites the method of claim 1 further comprising, "...*requesting updated metadata associated with the video program from a content server.*" Fig.1 teaches a database 200 which, "...comprises records associated with the respective pieces of content. The metadata processing the unit 160 accesses a record in the database 200 associated with content 123 using the identification data 155" [0018].

Claim 6 recites the method of claim 1, "...*wherein the updated metadata includes information generated after the video program was recorded.*" Kaars teaches, "The need for replacing the metadata 456 with the new metadata 789 may be due to various reasons... the metadata 456 may be outdated and needs to be replaced with the new metadata 789 comprising up-to-date information with respect to content 123" [0022].

As to claim 8, it is inherent that Kaars' device is able to update presently stored metadata with newly received metadata regardless of whether said presently stored metadata has been previously updated.

Claim 9 is rejected by Kaars as applied to claim 8.

As to claim 10, Fig.1 teaches a splitter 170 which separates the metadata 789 from the program content 123 and forwards the updated metadata 789 to metadata rendering unit 190. This is the equivalent of the recited, "*communicating the updated metadata to at least one client device.*"

As to claim 11, Kaars teaches, "The invention pertains to any type of multimedia content, e.g., textual, audio, video or audio/video such as a movie segment, a song, a radio or television program, a Web page, a portion of an electronic program guide or combination thereof" [0012].

As to claim 12, the recited, "[o]ne or more computer readable memories containing a computer program..." is inherent in a device that includes a memory and multiple processing and rendering units as taught in Fig. 1.

Claim 25 recites an apparatus comprising, *"a storage device [Kaars Fig. 1, memory 140]; and a processor coupled to the storage device [Fig. 1, metadata processing unit 150], wherein the processor is to record broadcast content and metadata associated with the broadcast content on the storage device, wherein the processor is further to receive updated metadata associated with the broadcast content, and wherein the processor is to replace the previously recorded metadata with the updated metadata if the updated metadata is more current than previously recorded metadata."* As applied to claim 1, Kaars teaches a device which records broadcast content 123 and associated metadata 456 and stores said recording in memory 140. Subsequent to the recording of said broadcast content and metadata, metadata processing unit 150 receives updated metadata 789 and replaces existing metadata 456 with updated metadata 789.

Claim 26 recites the apparatus of claim 25 further comprising, *"a communication interface coupled to the processor, wherein the communication interface is to receive updated metadata from a plurality of data providers coupled to the apparatus."* Fig. 1 of

Kaars teaches a metadata processing unit 160 connected to database 200 which receives updated metadata 789 from database 200.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 under 35 U.S.C. 103(a) as being unpatentable over Kaars.

Claim 5 recites the method of claim 1 further comprising, *"receiving a request to display information regarding the video program; and displaying at least a portion of the information contained in the updated metadata."* Kaars teaches that the metadata associated with the program may comprise, "...a short description of the associated piece of content, biographies of the cast, duration of the piece of content, time reference along the piece of content, references to other pieces of content, key scenes and so on" [0018]. The only value in having such information stored in the device's memory would be so that the user could view information about the program, e.g. biographical information about the director or cast members, when the user desired to see such information. It would have been obvious to one of ordinary skill in the art at the time of the invention that the user might not want to have metadata such as biographies of the

cast displayed at all times while viewing content 123 and would only want to have such information displayed at the user's discretion. It is well known in the art to display metadata related to broadcast content at the user's request (e.g., pressing a button on a remote control).

Claims 13 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Barker et al. (US 2002/0143976).

Claim 13 recites a method comprising, *"receiving metadata associated with program content; providing the received metadata to a plurality of client devices; receiving updated metadata associated with the program content; determining whether the updated metadata is more current than the previously received metadata; and if the updated metadata is more current than the previously received metadata: replacing the previously received metadata with the updated metadata; and providing the updated metadata to the plurality of client devices."* Fig. 1 of Barker et al. teaches a system in which distribution endpoint 45 receives an asset bundle from asset provider 5. Fig.3-4 describe the methods by which said asset bundle is created and by provider 5 and unpacked by endpoint 45. Step 340 of Fig. 3 shows that the asset bundle comprises "asset id, metadata storage device locator, metadata, and asset." In step 430 of Fig. 4, the asset bundle is unbundled by the distribution endpoint 45 and in step 450 the metadata is stored in the metadata cache. Barker teaches that distribution endpoint 45 can be a "cable headend (or 'distribution endpoint')" [0033] which would inherently have the capability to provide the asset and metadata to a plurality of client devices, such as

cable television subscribers. Barker teaches that the metadata, "is eventually displayed to a cable subscriber through a user interface..." [0025]. As to receiving and storing updated metadata for the stored asset bundle, Fig. 9 of Barker teaches a process y which distribution endpoint 45 receives updated metadata [step 910] and stores it in the metadata cache [step 920].

Claim 16 is rejected by Barker et al. as applied to claim 13.

Claim 17 is rejected by Barker et al. as applied to claim 13.

As to claim 18, Barker teaches:

...[i]n Step 720, the distribution endpoint 45 determines whether a polling interval for the asset has expired. In other words, in Step 720, the distribution endpoint 45 determines if it is time to request updated metadata because a polling interval has lapsed. If the distribution endpoint 45 determines...that a polling interval has expired, in Step 730, the asset manager 60 located at the distribution endpoint 45 sends a request for the updated metadata to the asset provider... [0068]

This is the equivalent of the recited "*requesting updated metadata associated with the program content periodically.*"

Claim 19 is rejected by Barker et al. as applied to claim 13. Barker teaches, "After distributing an asset and its metadata to one or more distribution endpoints, an asset provider may need to modify or update metadata associated with an asset at the asset provider and thereafter redistribute the updated metadata via a communications network to one or more distribution endpoints" [0028].

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. (Pub. No.: US 2002/0143976).

Claim 20 prescribes computer readable memories storing a program being executed by a processor to perform the method of claim 13. Barker et al is a processor-based system. Hence, it would have been obvious and necessitated to include one or more computer-readable memories and a computer program to execute the functionality taught by Barker et al.

Claims 2, 3, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaars as applied to claims 1 and 25 above, and further in view of Barker et al. (Pub. No.: US 2002/0143976).

Claim 2 recites the method of claim 1 further comprising, *“requesting updated metadata associated with the video program periodically.”* As applied above, paragraph 0018 of Kaars teaches that the device can request updated metadata related to a specific video program or other multimedia content from a remote database; however, Kaars does not explicitly teach that the device can autonomously request such an update on a periodic basis. Barker teaches a distribution network for both multimedia content and related metadata in which the distribution endpoints can make such a request.

...[i]n Step 720, the distribution endpoint 45 determines whether a polling interval for the asset has expired. In other words, in Step 720, the distribution endpoint 45 determines if it is time to request updated metadata because a polling interval has lapsed. If the distribution endpoint 45 determines...that a polling interval has expired, in Step 730, the asset manager 60 located at the distribution endpoint 45 sends a request for the updated metadata to the asset provider... [0068]

The device taught by Kaars is the equivalent of the distribution endpoint taught by Barker. It would have been obvious to one of ordinary skill in the art at the time of

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the invention to combine the device taught by Kaars with the polling interval taught by Barker et al. to allow users of the Kaars device to receive updated metadata for recorded content on a regular basis. Such functionality would have been desirable as it would have ensured that the user had access to current metadata concerning their recorded content without having to manually request metadata updates.

Claim 3 recites the method of claim 1 further comprising, *“requesting updated metadata associated with a plurality of video programs at regular intervals.”* As applied to claim 2, the combination of Kaars and Barker teach the ability to request updates for metadata related to a specific program at the end of a polling interval. The polling interval taught by Baker et al. is the functional equivalent of the recited *“regular intervals.”* Furthermore, Kaars [0018] teaches that the metadata associated with each program contains identification data 155 which enables to device to search for updated metadata related to that specific program in database 200. It would have been obvious to one skilled in the art that the Kaars device would be able to use the unique identification data 155 associated with each recorded program to request updated metadata for each program. Such functionality would have been desirable as it would have ensured that the user had access to current metadata concerning their recorded content without having to manually request metadata updates.

Claim 28 is rejected by Kaars and Barker as applied to claims 2 and 3 above.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaars as applied to claim 25 above, and further in view of Dunstan (Pub. No.: US 2004/0187151).

Claim 27 recites the apparatus of claim 25, *“wherein the processor is further to generate a listing of available content based on metadata stored on the storage device.”* As applied above, Kaars teaches the apparatus of claim 25 but does not explicitly teach the capability of listing all content stored on the storage device. Fig. 2 of Dunstan teaches a PVR (Personal Video Recorder) 100 which contains metadata 200, a recorded content list 215, and viewer recording list 225. Dunstan teaches that metadata 200 contains information including the names of programs recorded. It would have been obvious to one skilled in the art at the time of the invention to incorporate the listing function of Dunstan with the device of Kaars to provide the user a list of recorded content on the memory taught by Kaars.

Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaars as applied to claims 1 and 21 above, and further in view of Lees et al. (US Pat. No.: 7,162,499).

Claim 7 recites the method of claim 1, *“wherein the updated metadata has an associated timestamp.”* Kaars teaches that the metadata 456 and 789 associated with the program content 123 includes identification information 155. Kaars teaches:

The identifier 150 determines an identification data 155 from content 123 with the identification data 155 enabling identifying content 123. The identification data 155 is possibly a fingerprint derived from content 123... Alternatively, the identification data 155 may have been embedded in received content 123 in a format that the identifier 150 can

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understand before transmission to the device 110. The identification data 155 may have been previously generated and embedded in content 123 at the content source 120. [0017]

Identification data 155 is an obvious variant of the timestamp recited in claim 7.

Fig. 2 of Lees teaches identification data 116 which includes a version number (e.g., v2) and a timestamp (e.g., t3) as depicted in elements 202 and 206. Lees teaches that the version number and timestamp are used to resolve a conflict between metadata versions and determine which version of metadata for a given object is the most current:

In the example, both network sites have a version2 (v2) in metadata 132 for members attribute 130. Thus, computer B wins the replication conflict because the latest timestamp is time3 (t3) which is later than time2 (t2) at computer A. Other resolution policies may resolve replication conflicts with only a version number, or with only a timestamp. [Col. 3, Line 66 – Col. 4, Line 5]

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a timestamp as taught by Lees into the identification data 155 taught by Kaars to enable the device to retain the most current metadata version.

Claim 22 is rejected by Kaars and Lees et al. as applied to claim 7.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. as applied to claim 13 above, and further in view of Lees et al., and further in view of Kaars et al.

Claim 14 recites the method of claim 13 further comprising, *“discarding the updated metadata if the previously received metadata is more current than the updated metadata.”* Barker et al. teaches the method of claim 13 as well as storing the updated metadata, but does not explicitly teach that the older metadata is discarded. As analyzed above, Lees et al. teaches a method by which a version number and timestamp are included in metadata associated with an object and used to determine

which version from among two or more sets of metadata is most current. As analyzed above, Kaars teaches that the updated metadata replaces the older metadata in the device memory in order to provide maximum storage space in the device memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a timestamp as taught by Lees into the metadata taught by Barker to ensure that the distribution endpoint retains the most current metadata version. Per Kaars, it would have been well known in the art at the time of the invention that discarding the older metadata would enable the distribution endpoint to maximize the amount of free space in its metadata cache.

Claim 15 recites the method of claim 13 wherein, *“determining whether the updated metadata is more current than the previously received metadata includes comparing a timestamp associated with the updated metadata to a timestamp associated with the previously received metadata.”* As analyzed above, Lees et al. teaches a method by which a version number and timestamp are included in metadata associated with an object and used to determine which version from among two or more sets of metadata is most current. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a timestamp as taught by Lees into the system taught by Barker to ensure that the distribution endpoint retains the most current metadata version.

Claims 21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaars.

Claim 21 recites, *“One or more computer-readable media having stored thereon a computer program that when executed by one or more processors, causes the one or more processors to ...”*. The device taught by Kaars is a processor-based device. Hence, it would have been obvious and necessitated to include one or more computer-readable memories and a computer program to execute the functionality taught by Kaars.

Claim 21 further recites that the recited computer program causes the recited processors to *“...receive a request to display available content; identify metadata associated with the available content; determine whether other metadata associated with the available content is more current than the identified metadata; if the other metadata associated with the available content is more current than the identified metadata, then generate a display of available content using the other metadata; and if the identified metadata is more current than the other metadata associated with the available content, then generate a display of available content using the identified metadata.”* As applied to claim 5, it is well-known in the art to display metadata at the user's request. The Identifier 160 and Metadata Processing Unit 150 taught in Fig. 1 of Kaars identify the metadata associated with the program content using identification information 155 and Metadata Rendering Unit 190 renders said metadata to the user. Regarding determining which metadata from among a plurality of metadata is most current, there are well-known methods in the art, as applied to claims 7 and 22 above to resolve such conflicts.

Claim 23 recites, *"One or more computer-readable media as recited in claim 21 wherein if the other metadata associated with the available content is more current than the identified metadata, then replacing the identified metadata with the other metadata."* As applied to claim 1 above, Kaars teaches, "...the metadata 456 may be outdated and needs to be replaced with the new metadata 789...The unit 160 may store content 123 with new metadata 789 in the memory 140 thereby replacing content 123 previously stored with the metadata 456" [0022-23].

Claim 24 recites, *"One or more computer-readable media as recited in claim 21 wherein the request to display available content is received from a client device coupled to a display device."* Kaars teaches, "the embodiments described herein are given in the framework of personal television services such as the ones offered by TIVO or MICROSOFT" [0012]. As applied to claim 5 above, it is well known in the art to display metadata related to broadcast content at the user's request (e.g., pressing a button on a remote control).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Stronczer whose telephone number is (571) 270-3756. The examiner can normally be reached on 7:30 AM - 5:00 PM, M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan Stronczer/
Examiner, Art Unit 4157

/Vu Le/
Supervisory Patent Examiner, Art Unit 4157
Patent Training Academy